**Submit Time:** 1/8/2013 16:44:42

From: CN=Thomas Eaton/OU=R10/O=USEPA/C=US

To: CN=Michael Cox/OU=R10/O=USEPA/C=US@EPA CN=Eric

Winiecki/OU=R10/O=USEPA/C=US@EPA CN=Sheila Fleming/OU=R10/O=USEPA/C=US@EPA

Cc: CN=Marie Jennings/OU=R10/O=USEPA/C=US@EPA

Subject: Fw: Dairy lagoons, etc.

Here are some references from Barb Carey regarding nitrate contamination, with some focus on lagoons as a potential source.

Tom Eaton Director Washington Operations Office USEPA, Region 10 360-753-8086

---- Forwarded by Thomas Eaton/R10/USEPA/US on 01/08/2013 08:41 AM -----

From: "Carey, Barb (ECY)" <bcar461@ECY.WA.GOV>

To: Thomas Eaton/R10/USEPA/US@EPA

Date: 01/07/2013 05:26 PM Subject: Dairy lagoons, etc.

Tom,

I don't know if you have access to our X:\ drive, so I'm attaching the articles I was referring to regarding lagoon leaching and nitrate.

The Executive Summary of the huge U.C. Davis study that the CA legislature mandated has the figure with dairy lagoons contributing 0.2% of nitrogen (1<sup>st</sup> attachment).

The other attachment is one of the several parts of the study. See p. 146-150 for the dairy lagoon assessment.

Here is the link to all the parts of the study. <a href="http://groundwaternitrate.ucdavis.edu/">http://groundwaternitrate.ucdavis.edu/</a>

The 3<sup>rd</sup> article compares field data with model predictions of nitrogen leaching from lagoons, manured fields, and corrals.

I hope this is helpful.

Barb

Barbara Carey, LHg
Environmental Assessment Program
Washington Department of Ecology
300 Desmond Drive
Olympia, WA 98504-7710
(360) 407-6769
[attachment "Harter\_2012\_executive summary.pdf" deleted by Sheila Fleming/R10/USEPA/US]
[attachment "Harter\_2012\_Tech Rpt\_2\_N Sources and Loading.pdf" deleted by Sheila

Fleming/R10/USEPA/US] [attachment "vanderSchans, Harter 2009.pdf" deleted by Sheila Fleming/R10/USEPA/US]